



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/715,436	11/19/2003	Hiroyuki Mitsu	117805	5347
25944	7590	09/21/2006	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			PAYNE, DAVID C	
			ART UNIT	PAPER NUMBER
			2613	

DATE MAILED: 09/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/715,436

Applicant(s)

MITSU ET AL.

Examiner

David C. Payne

Art Unit

2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 19-25 is/are allowed.
- 6) ☒ Claim(s) 1 and 16 is/are rejected.
- 7) ☒ Claim(s) 2-15, 17 and 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner. --
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Suzuki US 6172788 B1 (Suzuki).

Re claims 1 and 16, Suzuki disclosed

An optical scanning apparatus according to the present embodiment comprises laser diodes 12a, 12b. A laser beam irradiated from the laser diode 12a is referred to as laser beam A and a laser beam irradiated from the laser diode 12b is referred to as laser beam B.

On an optical axis of the laser diode 12a are disposed a collimator lens 14a, a slit 16a, a cylinder lens 18a and a reflection mirror 20a in this order from the vicinity of the laser diode 12a. Likewise, on an optical axis of the laser diode 12b are disposed a collimator lens 14b, a slit 16b, a cylinder lens 18b and a reflection mirror 20b in this order from the vicinity of the laser diode 12b.

On the respective optical axes of the laser diodes 12a, 12b are disposed an f.theta. lens 28 (first lens 26, second lens 24) and a polygon mirror 22 in this order from the vicinity of the reflection mirrors 20a, 20b. The laser beams A, B reflected (deflected) by the polygon mirror 22 pass through the f.theta. lens 28 (second lens 24, first lens 26). The length of each deflecting face of the polygon mirror 22 in the scanning direction is shorter than the length of the beam diameter of the laser beams A, B

Art Unit: 2613

striking that deflecting face (so-called overfilled system). Meanwhile, the scanning line direction is referred to as the main scanning direction and a direction perpendicular to the scanning line direction is referred to as the auxiliary scanning direction.

Further on the optical axes of the laser diodes 12a, 12b are disposed a cylinder mirror 30 and a photoconductor 36 in this order from the vicinity of the f.theta. lens 28.

A mirror 32a is disposed at a predetermined position in front of the first incident position in the image area of a photoconductor 36 when the photoconductor 36 is scanned by laser beam A. A start-of-scan (hereinafter referred to as SOS) sensor 34a is disposed as a detecting means on an optical axis of the laser beam A reflected by the mirror 32a.

A mirror 32b is disposed at a predetermined position behind the last incident position in the image area of the photoconductor 36 when the photoconductor 36 is scanned by laser beam B. An end-of-scan (hereinafter referred to as EOS) sensor 34b is disposed as a detecting means on an optical axis of the laser beam B reflected by the mirror 32b.

Next, a control system of the light scanning device of the present embodiment will be described.

As shown in FIG. 2, this control system comprises a plurality of CPUs (not shown) and includes a control circuit 100 which is an adjusting means for controlling the operations of the light scanning device, e.g., col./line: 18/5-55.

Allowable Subject Matter

4. Claims 2-15, 17 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
5. Claims 19-25 are allowed.

Art Unit: 2613

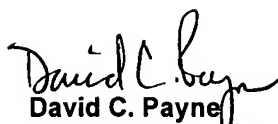
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David C. Payne whose telephone number is (571) 272-3024. The examiner can normally be reached on M-F, 7:00a - 4:30p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Dcp


David C. Payne
Primary Examiner
AU 2613